DOCUMENT RESUME

ED 417 360 CG 028 308

AUTHOR VanZile-Tamsen, Carol; Boes, Susan R.
TITLE Graduate Students' Attitudes and Anxiety toward Two Required Courses: Career Development and Tests and Measurement.
PUB DATE 1997-11-00
NOTE 27p.; Paper presented at the Annual Meeting of the Georgia Educational Research Association (Atlanta, GA, November 13-14, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Anxiety; *Counselor Training; *Course Selection (Students); *Graduate Students; Higher Education; *Required Courses; *Stress Variables; Student Attitudes

ABSTRACT

Graduate students face numerous sources of anxiety. In order to explore students' stressors, student attitudes and anxiety toward two mandatory graduate counseling courses are examined here. All participants were students enrolled in either the Career Development or the Tests and Measurement course during the summer quarter (N=43; Mean Age=33 years). Pre- and post-test design was analyzed separately for the two courses. The results suggest that the greater the number of quarter hours completed, the greater the pre-course anxiety about course requirements. The findings suggest that, for the Career Development course, students may experience less anxiety of they enroll in this class earlier in their programs. For Tests and Measurements, results indicate that students probably would feel anxiety regardless of when they took this course, but by taking it early in their program, they could avoid making this course the final hurdle for graduation. Implications of findings for instructors, advisors, and students are discussed. (EMK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 417 360

Running Head: ATTITUDES AND ANXIETY

Graduate Students' Attitudes and Anxiety Toward Two Required Courses: Career Development and Tests and Measurement

Carol VanZile-Tamsen, Ph.D.

Susan R. Boes, Ph.D.

State University of West Georgia

Paper Presented at the Annual Meeting of the Georgia Educational Research Association, Atlanta, GA, November 13-14, 1997

CG028308

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. VanZile-Tamsen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Abstract

The purpose of the present paper is to report findings from a research project which attempted to examine student attitudes and anxiety toward two mandatory graduate counseling courses. All of the participants were enrolled in either the Career Development or the Tests and Measurement course during summer quarter. In the Career Development class, there were three males and 19 females; five of the students were black while 17 were white. In the Tests and Measurement Class, there were 20 females and one male. Of these students, 20 were white, and one was black. The mean age of respondents was 33. Participants responded at the end of the quarter to a retrospective rating scale requiring students to rate such factors as anxiety about the course, interest in course content, perceived relevance of course content, anxiety about the course grade, and their confidence in their own ability to be successful in the course. For the Career Development course, only one of the six attitude/anxiety measures changed significantly over the term. Anxiety about course requirements actually increased slightly over the academic term. In addition, the greater the number of quarter hours completed, the greater the pre-course anxiety about course requirements. Regardless of when students take Tests and Measurement in their course program, they are likely to feel anxiety about it. However, throughout the course, their anxiety about course requirements, negative attitude about the class as boring, and anxiety about the final grade all decreased significantly. Their confidence in their ability to be successful in the course did not change significantly, nor did their interest in the course content or their ratings of perceived relevance of the course for career goals. Findings have implications for instructors of these classes, as well as for advisors who help these students design their programs of study.

Graduate Students' Attitudes and Anxiety Toward Two Required Courses: Career Development and Tests and Measurement

The purpose of this paper is to report findings from a research project which attempted to examine student attitudes and anxiety toward two mandatory courses in the Counseling and Educational Psychology (CEP) Department in a southeastern university. The two courses were Career Development and Tests and Measurement. Reasons for the research stemmed from informal information from students which indicated that they often leave these courses until the end of their programs when they are no longer "fresh" and full of energy , or when they are separating from the program and "just want to be done" due to anxiety and negative attitudes about these courses. Students in this latter category often see Career Development and Tests and Measurement as hurdles to overcome to graduation.

Another consideration in the development of this study was the belief of some students that both courses contain boring content. Comments about Career Development indicate that the students are not interested in the content as they do not see its relevance to personal counseling, and the amount of work involved in the course is anxiety provoking. Comments from students specific to Tests and Measurement seem to indicate they are intimidated by the course content and have a great deal of anxiety about taking the course. As a result, many students take it the last quarter of their programs. Student perceptions of irrelevant and boring content and intimidating yet boring content add to anxiety about grades for these courses. The present research was undertaken in an effort to understand the attitudes and anxiety of graduate students taking these courses.

Anxiety and Graduate Students

Anxiety has been defined as "a strong concern about some imminent development" (Gove, 1976, p. 97) and is well documented as a psychological barrier for many students in such areas as library research (Mellon, 1986) and statistics achievement (Onwuegbuzie & Daley, 1996; Onwuegbuzie & Seaman, 1995). Robert and Bilderbach (1998) found that some students go so

far as to delay statistics courses for as long as possible due to the anxiety connected with such courses.

A review of the literature indicates that little has been researched about anxiety associated with graduate course work. The research that has been completed has examined specific areas, like statistics and library anxiety. Onwuegbuzie (1997) found that anxiety about statistics can wreak havoc on student performance, as well as play a role in their attitudes toward the course material. He also found library anxiety can act as an identified mental block for many students which can debilitate information literacy. Students may have real concern about the imminence of taking the Tests and Measurements course since it deals with some degree of statistics. The Career Development Course involves several papers involving library research and writing in APA style which may add to the anxiety connected with this course.

Anxiety, emotions, and attitudes. While poor attitudes of undergraduate students' toward statistics are often cited as problematic for students taking the courses, one study found students taking an introductory course in statistics had surprisingly positive attitudes toward the course (Scott, 1996). This finding suggests that some anxiety may be beneficial as the Yerkes-Dodson Law suggests (Petri, 1991).

Attitude as "a position or bearing indicating action, feeling or mood" (Gove, 1976, p. 141) can be problematic or helpful to performance in these courses. Emotions are defined as creating turmoil in feelings (Gove, 1976, p. 742) and have been found to play an important part in attitudinal change because they have an integral function in the persuasion process (Breckler, 1993). Thus, graduate instructors can draw from the students' comments about the reason for the emotional anxiety felt for the course and use this knowledge to work to change attitudes and possibly diminish anxiety.

Anxiety Associated with Grades

Grades are important to the learning process and serve to inform students about their progress, yet the very topic of grades provokes anxiety in many students in regards to courses in

BEST COPY AVAILABLE

which they are enrolled. In a study on the meaning of grades using faculty and student metaphors Goulden and Griffin (1995) found the difference in communication about the meaning of grades a definite source of anxiety and frustration. The research found that both teachers and students believe grades to be predictive of future accomplishment. Both groups agreed the main purpose for using grades is to provide information to the students about their learning but the groups differed on the meaning of grades. This is seen in the difference in metaphors used to describe grades by both groups. The data from Goulden and Griffin (1995) recommend open discussion in the classroom of the difference in perceptions of students and educators on grades, and acknowledging the concerns of the students about grades being a strong influence on future accomplishments. Another study on attitudes toward grades by college students' (Bahn, 1996) demonstrated a moderate correlation in attitude toward grades according to the degree of student preparation for class. Students in this study who felt they prepared well by studying long hours had higher grade point averages and reported feeling better about their grades.

Examining Graduate Students' Attitudes and Anxiety

The present study was designed to explore graduate students' attitudes and anxiety toward these two required courses in a retrospective fashion. It was anticipated that the research findings would generate information to suggest relevant interventions to work toward easing student anxiety about the course content and grades. It is well documented that anxiety may worsen symptoms of an already weakened immune system (Glaser & Kiecolt-Glaser, 1987), and often students involved in graduate programs are under a great deal of stress; as a result, they need no further stress from courses that need not be stressful. Thus, the instructors of the two graduate courses undertook this research in an effort to structure course content in classes in such a way to ease anxiety and to work to change attitudes toward course content to a more positive outlook. Results of this research also can help the instructors gear the courses to meet the needs of the students in the hopes that meeting needs might change student attitudes toward the courses. Implications for advising and for instructor preparation for the courses were other anticipated outcomes.

Specifically, the students were to reflect at the end of the quarter on their attitudes and anxiety at the beginning of the quarter, as well as at the end of the quarter. The following variables were explored: when in their programs students are taking these two courses, why they are taking these courses, their interest in the course content before and after the course is taken, the perceived relevance of course content before and after taking the course, anxiety about course content before and after taking the course, and the impact of these factors on the quality of student performance (grades).

Method

Participants

The participants in this study were graduate students in the College of Education at a mid-size regional state university in the Southeast. All of the participants were enrolled in either the Career Development or the Tests and Measurement course in the Counseling and Educational Psychology Department during summer quarter. (Since these are two very different courses which are taught by two different instructors, the participants and results will be discussed separately for the two classes.) In both classes, the majority of students were white females. In the Career Development class, there were three males and 19 females; five of the students were black while 17 were white. All of these students were enrolled in M.Ed. programs in counseling; 14 of these students were enrolled in the school counseling program, while six were enrolled in the community counseling program. (Two students did not indicate their major.) The ages of these students ranged from 23 to 54, with the mean age being 34.86. The grade point averages (GPA's) of these students ranged from 3.00 to 4.00, with the mean GPA being 3.73.

In the Tests and Measurement Class, there were 20 females and one male. Of these students, 20 were white, and one was Black. Fourteen of these students were enrolled in M.Ed. Programs, while 6 were enrolled in Ed.S. Programs, and one was in the certification-only program for school counseling (which has since been dropped as an option for students). Of these students, 11 were enrolled in the school counseling program, two were enrolled in the community

counseling program, and 7 were enrolled in various teacher education programs. (One student did not indicate gender, race, degree, and major, while one additional student did not indicate major.) The ages of these students ranged from 24 to 53, with a mean age of 33.33. The GPA's of these students ranged from 3.00 to 4.00, with a mean GPA of 3.80.

Materials

The instrument used in the present study to assess attitudes and anxiety was an author-designed questionnaire which included personal information, open-ended questions about reasons for enrolling in the course, and a retrospective rating scale requiring students to rate such factors as anxiety about the course, interest in course content, perceived relevance of course content, anxiety about the course grade, and their confidence in their own ability to be successful in the course. This instrument is shown in the Appendix. The items were generated from informal student comments which seemed to indicate that they were enrolling in these two courses at the end of their programs because of negative attitudes about the courses, either based on the belief that the content is boring, the course requires a great deal of work, or the course is very difficult. The instrument was designed to assess when students are taking these two courses and why they are taking these courses. The instrument was also designed to allow them to rate their pre-course anxiety and attitudes, as well as their post-course anxiety and attitudes. The pre-course ratings were completed at the same time as the post-course ratings in a retrospective fashion.

Procedure

Data collection took place during the last week of the two courses. The respective instructors of the two classes administered the questionnaire to the students in those classes. The participants signed a consent form and responded anonymously to the questionnaire. The students were informed that their grades would in no way depend upon participation in the research and that the data from the questionnaire would not be analyzed until after the final grades had been turned in. The questionnaires were collected separately from the consent forms to ensure complete anonymity.

Design

Zero-order correlations were calculated to examine the relationships of the number of credit hours completed with attitudes and anxiety, GPA with attitudes and anxiety, and age with attitudes and anxiety. Paired samples t-tests were used to determine if there was a significant change in the six attitude and anxiety ratings from the beginning of the quarter to the end of the quarter. Chi-squares were used to examine the relationship between expected final grade and attitudes and anxiety about the content. The open-ended questions were analyzed qualitatively (i.e., themes were identified), and this information was used to help further explain the quantitative findings.

Results

The means and standard deviations of the variables in the study are shown in Table 1. The discussion of the results is outlined separately here for each of the two courses.

Career Development

The results of the pre-post t-tests for Career Development (shown in Table 2) indicate that anxiety about the course requirements actually increased over the course of the term ($t = 2.07$, $p < .06$). There was no change in negative attitude about the course due to boring content ($t = -.41$). In addition, there was no increase in interest or perceived career relevance over the course of the term ($t = .83$ and $t = 1.46$, respectively). Anxiety about the grade in the course was rated exactly the same for pre-course as for post-course ($t = 0.00$). Confidence in being successful in the course decreased slightly but not significantly ($t = -.82$).

The correlation matrix is shown in Table 3. The correlational analyses indicate that, in this class, GPA was significantly correlated with pre-course ratings of interest and relevance. The correlation of GPA and pre-course interest was -.42 ($p < .05$), indicating that the higher the GPA the lower the pre-course interest in the content. The correlation of GPA and perceived relevance was -.52 ($p < .02$), indicating that the higher the GPA the lower the rating of perceived relevance of the content for career goals. There is no relationship between GPA and the other measures of pre-course attitudes and anxiety. In addition, there is no relationship with GPA and post-course

interest and perceived relevance. Number of quarter hours completed approached a significant relationship with pre-course anxiety about course requirements ($r = .40$, $p < .07$), indicating that the greater the number of credit hours completed the greater the pre-course anxiety. There is no relationship between the number of hours completed and post-course anxiety or any of the other pre-post measures of attitudes/anxiety.

Chi square analyses of expected final grade with post-measures indicate that the expected grade in the course was not significantly related to any of the post attitude/anxiety measures. See Table 4 for these results.

Tests and Measurement

The results of the pre-post t-tests for Tests and Measurement (shown in Table 5) indicate that anxiety about course requirements significantly decreased by the end of the course ($t = -6.24$, $p < .001$). In addition, the negative attitude about the course due to it's boring content decreased as well ($t = -5.99$, $p < .001$). Interest in the course and perceived relevance of the course to career goals did not change significantly ($t = 1.35$, and $t = 1.37$, respectively), although they were positive changes, indicating that interest and relevance increased slightly but not significantly. Anxiety about the grade in the course also decreased significantly over the quarter ($t = -4.42$, $p < .001$), while perceived confidence of being successful in the course did not change over time ($t = .70$).

The correlation matrix is shown in Table 6. There was no significant correlation between number of credit hours completed or GPA and pre-course anxiety/attitude estimates. However, this very small sample size requires a very large correlation to be significant. Since the range of final grades was so small, no analyses were done using final grade as a variable.

Summary of Results

For the Career Development course, only one of the six attitude/anxiety measures changed significantly over the term. Anxiety about course requirements actually increased slightly over the academic term. Some of the comments help to clarify this finding: students felt that there was too

much required work for a summer course, especially if they were enrolled in more than one class, and several were taking three classes which is considered an overload. In addition, the greater the number of quarter hours completed, the greater the pre-course anxiety about course requirements, which may indicate that they really just wanted to have an easy course with little work which would make getting to graduation that much easier. In addition, none of these students had ever had this instructor before, so none knew what to expect in terms of grading, test format, etc. This fear of the unknown could have increased their anxiety about requirements and about the course as a whole.

In terms of teaching this class, these findings suggest it may be practical for the instructor to discuss on the first night of class the amount of material the course will cover. This acknowledgement of student anxiety about course content and the number of assignments to be completed may be helpful. Naming the problem and allowing students time in class to share their frustrations also may help with both the anxiety and the negative attitude.

Long range, it may be beneficial to the instructor to work with the department chair to divide the enrollment in the course by programs. One term could be career development for school counselors with a focus on classroom activities and career program planning, while the next term could be career development for community counselors with a focus on career counseling and job search strategies. At this time, the course is designed to focus on both realms. While adding the diversity of addressing both programs, this enlarges the volume of material to be covered in any one quarter.

In terms of Test and Measurement, these findings suggest that, regardless of when students take Tests and Measurement in their course program, they are likely to feel anxiety about it. However, throughout the course, their anxiety about course requirements, negative attitude about the class as boring, and anxiety about the final grade all decreased significantly. Their confidence in their ability to be successful in the course did not change significantly, nor did their interest in the course content or their ratings of perceived relevance of the course for career goals. Comments

on the questionnaire suggest that the teaching style and practical nature of the course are the main factors that decrease anxiety and negative attitudes about Tests and Measurement. Other factors may have been influential in decreasing po st-course anxiety ratings and increasing post-course attitudes. First, the class was smaller than sections of the same course taught during the regular academic year (22 students as compared to 30 to 40 which are enrolled in the Fall through Spring quarters). Second, gender make-up may have played a role; women tend to have greater levels of anxiety about this course due to the math content, while men generally like the math. Having only one male in the class may have allowed the women more freedom to experience trial and error with the math as they expected less censure for failure from the class as a whole. Finally, two students had been enrolled in classes taught by this instructor previously which may have resulted in some sharing of information about expectations that led other students to believe that the instructor, and the class, were not really so bad.

Discussion

In sum, the results of this study have provided practical information for the advising of these graduate students about when to take these courses and for the restructuring of these classes to better optimize the anxiety levels of these students. In terms of Career Development, these findings suggest that students may experience less anxiety if they enroll in this class earlier in their programs. Not only can advisors encourage students to take Career Development earlier in their programs, but they can also encourage them to avoid taking it during the shortened summer term, especially when enrolled in more than one class. Regardless of anxiety level, however, many of these students do come to realize that the content is relevant to their own career goals. Interestingly, several students responding to this present survey who acknowledged a less than positive attitude and high anxiety responded in the comment section that, in retrospect, the experiences in the course were positive. Perhaps this confirms the Yerkes-Dodson Law of optimal anxiety (Petri, 1991) and could be used by the Career Development and Tests and Measurement course instructor to find the appropriate amount of anxiety to ignite the students to

BEST COPY AVAILABLE

maximum performance levels.

In terms of Tests and Measurement, the findings suggest that, regardless of when students enroll in the course, they are going to feel anxiety about it. However, encouraging students to enroll earlier in their programs can eliminate the anxiety students may feel if they know this is the only course they have remaining in order to graduate by their expected graduation data. Student comments suggest that incorporating practical information, group activities, and a relaxed attitude toward the course content by the instructor can minimize the debilitating effects of anxiety. Unfortunately, there is no clue as to how to make the class more interesting or encourage perceptions that it is relevant to career goals. Perhaps one method would be to change the course description in the catalog to include some statement about the relevance of the course for teachers and counselors. Also, advisors could be given the same description to help their advisees become more aware of the relevance of the course.

Additional Interventions to Reduce Anxiety

There are some interventions that might be used by any graduate instructor to reduce or optimize the anxiety of a student. First, incorporating more cooperative learning strategies may help foster a more positive attitude toward the course and reduce debilitating anxiety. Mealey and Host (1992) suggest that cooperative learning can provide a sense of social support for students which can decrease feelings of isolation and the belief that "everyone understands this but me." In addition, Feldmann, Martinez-Pons, and Shaham (1995) found that collaborative learning is related to self-regulated learning. Those students who are more effective self-regulated learners tend to have less evaluation anxiety in courses (Kleijn, van der Ploeg, & Topman, 1994). Thus, an effective strategy for instructors in the Career Development and Tests and Measurement courses might be to integrate a more collaborative learning environment to foster this self-regulatory behavior, which, in turn, might lessen negative attitudes and anxiety.

Second, the instructors might devote some time at the beginning of the term to help students understand the Yerkes-Dodson Law and that everyone has an optimum anxiety level

(Petri, 1991). Additionally, the instructors may be able to better determine how much anxiety is too much anxiety and take time out for review or just take a break.

As Goulden and Griffin (1995) suggest, the instructors in the Career Development and Tests and Measurement courses could openly discuss their views on grades or include this discussion in their syllabi. In addition, these instructors need to help students emphasize learning for its own sake rather than for grades alone as a way to encourage greater intrinsic interest and self-regulated strategy use (Ames & Archer, 1988; Entwistle, 1988). Finally, Schonwetter, Struthers, & Perry (1995) suggest that, in addition to a clear grading system, instructors also need to develop more organized lecture presentations. When students see clearly how course concepts are related to one another, their understanding increases, and their anxiety decreases.

Limitations of the Present Study

The fact that this research was completed during summer quarter when some students enrolled reported feeling stressed due to the pressure of the shortened quarter and taking more than one class may have bearing on the outcome of the data. In addition, as research by Mellon (1986), Onwuegbuzie and Daley (1996), and Onwuegbuzie and Seaman (1995), there may be specifics within each of these classes that are causing anxiety but that are not apparent due to the instrument. For example, the anxiety related to Tests and Measurement may really be mostly related to math anxiety or statistics anxiety, while that related to Career Development concerns learning APA style and doing library research. Adding additional items to the instrument, can only help increase the understanding of anxiety in these courses.

Both of these samples is very small. As a result, this research project will continue throughout the next calendar year to gather more data about students' attitudes and anxiety toward Tests and Measurement and Career Development. In addition, all data is based on self-report and may be biased by students' perceptions of the purpose of this research, as well as personal attitudes about the instructors involved. Finally, this was a retrospective rating scale: students were asked to rate their pre-course anxiety and attitudes at the end of the course. It is quite

possible that their memories or perceptions of pre-course feelings had been distorted. In the future, students will respond to the rating scale on the first night of class in addition to completing the retrospective rating scale on the last night of class. The comparison of actual pre-course ratings with retrospective ratings should provide important information about the amount of distortion that actually occurs.

References

Ames, C. & Archer, A. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. Journal of Educational Psychology, 80, 208-223.

Bahn, C., DiStefano, C., Glassman, D., Liu, S. F., Lowman, L., McPeek, D., Nasser, F., Oh, S., Pike, C., Takahashi, Y. (1996, November). Correlates of college students: Attitudes toward grades. Paper presented at the annual meeting of the Georgia Research Association meeting, Atlanta, GA.

Breckler, S. J. (1993). Emotion and attitude change. In N. Lewis & J. M. Haviland (Eds.), Handbook of emotions (pp. 461-473). New York: Gryphon Press.

Entwistle, N. (1988). Motivation and learning strategies: Effective learning. Educational and Child Psychology, 5(3), 5-20.

Feldmann, S. C., Martinez-Pons, M., & Shaham, D. (1995). The relationship of self-efficacy, self-regulation, and collaborative verbal behavior with grades: Preliminary findings. Psychological Reports, 77, 971-978.

Glaser, R., & Kiecolt-Glaser, J. (1987). Stress-associated depression in cellular immunity. Brain, Behavior, and Immunity, 1.

Goulden, N. R., & Griffin, J. G. (1995). The meaning of grades based on faculty and student metaphors. Communication Education, 44, 110-125.

Gove, P. B. (Ed.). (1976). Webster's Third New International Dictionary Unabridged. Springfield, MA: G. & C. Merriam Company.

Kleijn, W. C., van der Ploeg, H. M., & Topman, R. M. (1994). Cognition, study habits, test anxiety, and academic performance. Psychological Reports, 75, 1219-1226.

Mealey, D. L., & Host, T. R. (1992). Coping with test anxiety. College Teaching, 40, 147-150.

Mellon, C. A. (1986). Library research: A grounded theory and its development. College and Research Libraries, 47, 160-165.

Onwuegbuzie, A. J. (1997, May). The role of statistics and library anxiety in research methodology courses. Paper presented to faculty and students at the State University of West Georgia, Carrollton, GA.

Onwuegbuzie, A. J., & Seaman, M. (1994). The effect of time and anxiety on statistics achievement. Journal of Experimental Psychology, 63, 115-124.

Petri, H. L. (1991). Motivation: Theory, research, and applications. Belmont, CA: Wadsworth Publishing Company.

Roberts, D. M., & Bilderbach, E. W. (1980). Reliability and validity of a statistics attitude survey. Educational and Psychological Measurement, 40, 235-238.

Schonwetter, D. J., Struthers, C. W., & Perry, R. P. (1995, April). An empirical investigation of effective college teaching behaviors and student differences: Lecture organization and test anxiety. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Scott, J. S. (1996, November). Undergraduate students' attitudes toward the introductory statistics course. Paper presented at the annual meeting of the Georgia Research Association meeting, Atlanta, GA.

BEST COPY AVAILABLE

Table 1

Means and Standard Deviations

Tests and Measurement Means, N = 21			Career Development Means, N = 22		
Variable	Mean	Std Dev	Variable	Mean	Std Dev
Age	33.33	9.06	Age	34.86	10.18
Hours Completed	42.86	15.62	Hours Completed	30.95	12.00
GPA	3.80	.31	GPA	3.73	.25
PRE1	7.05	3.01	PRE1	4.73	2.85
PST1	3.62	2.27	PST1	6.45	2.32
PRE2	7.26	2.35	PRE2	3.45	2.79
PST2	3.62	2.18	PST2	3.18	2.13
PRE3	5.74	2.31	PRE3	5.50	2.60
PST3	6.57	2.36	PST3	6.05	3.14
PRE4	6.26	2.54	PRE4	5.82	3.00
PST4	7.14	2.63	PST4	7.14	3.11
PRE5	6.16	3.08	PRE5	4.95	2.65
PST5	3.19	2.91	PST5	4.95	2.84
PRE6	6.32	2.81	PRE6	7.00	2.45
PST6	6.95	3.15	PST6	6.41	2.20

Legend:

PRE1 Pre-Course Anxiety About Course Requirements
PST1 Post-Course Anxiety About Course Requirements
PRE2 Pre-Course Negative Attitude about Course due to Boring Content
PST2 Post-Course Negative Attitude about Course due to Boring Content
PRE3 Pre-Course Interest in Learning about Course Content
PST3 Post-Course Interest in Learning about Course Content
PRE4 Pre-Course Perception that Course Content is Relevant to Career Goals
PST4 Post-Course Perception that Course Content is Relevant to Career Goals
PRE5 Pre-Course Anxiety about Getting a Bad Grade
PST5 Post-Course Anxiety about Getting a Bad Grade
PRE6 Pre-Course Confidence in Ability to be Successful in Course
PST6 Post-Course Confidence in Ability to be Successful in Course

Table 2

Results from t-tests - Career Development

Variable	Pre Mean	Post Mean	Difference	SD Diff	SE Diff	t	df	p
1	4.73	6.45	1.73	3.91	.83	2.07	21	.051
2	3.45	3.18	-.27	3.15	.67	-.41	21	.689
3	5.50	6.05	.55	3.07	.65	.83	21	.413
4	5.82	7.14	1.32	4.23	.90	1.46	21	.159
5	4.95	4.95	.00	4.05	.86	.00	21	1.00
6	7.00	6.41	-.59	3.38	.72	-.82	21	.421

Table 3

Correlation Matrix -- Career Development

	AGE	GPA	HRS	PRE1	PST1	PRE2	PST2	PRE3	PST3	PRE4	PST4	PRE5	PST5	PRE6	PST6
AGE	1.00														
GPA	.19	1.00													
HRS	**.37**	-.09	1.00												
PRE1	-.08	-.02	**.40**	1.00											
PST1	-.28	.03	-.09	-.13	1.00										
PRE2	.02	-.04	.35	**.68**	.01	1.00									
PST2	**-.64**	.22	-.15	.13	.36	.20	1.00								
PRE3	.29	**-.42**	.18	-.01	-.32	-.20	**-.50**	1.00							
PST3	.34	.01	.11	-.14	-.11	**-.41**	**-.47**	**.44**	1.00						
PRE4	-.06	**-.52**	.12	.01	-.20	-.14	-.19	**.73**	.15	1.00					
PST4	.23	.12	.04	-.06	-.10	-.27	-.26	.14	**.85**	.04	1.00				
PRE5	-.23	-.05	.20	.08	**.41**	.25	.36	-.17	**-.56**	.21	**-.46**	1.00			
PST5	-.12	-.05	.05	.10	.35	.20	.12	**-.38**	.17	-.26	.34	-.09	1.00		
PRE6	.22	-.26	.13	-.18	.17	-.01	-.26	**.45**	.22	**.46**	.04	.10	-.01	1.00	
PST6	.13	.11	.01	.05	-.01	-.01	.14	.14	**.43**	.01	**.62**	-.17	-.04	-.05	1.00

Note: Bolded correlations are significant at the .05 level or less.

Table 4

Chi Square Results - Career Development: Relationship of Expected Grade with 6 Ratings

Variable	Likelihood Ration	DF	p value
1	16.57	21	.737
2	13.86	15	.537
3	23.22	24	.507
4	16.63	21	.733
5	20.59	21	.485
6	17.62	21	.284

BEST COPY AVAILABLE

Table 5

Results from t-tests - Tests and Measurement

Variable	Pre Mean	Post Mean	Difference	SD Diff	SE Diff	t	df	p
1	7.05	3.47	-3.58	2.50	.57	-6.24	18	.000
2	7.26	3.42	-3.84	2.79	.61	-5.99	18	.000
3	5.74	6.68	.95	3.06	.70	1.35	18	.194
3	6.26	7.21	.95	3.01	.69	1.37	18	.187
5	6.16	3.00	-3.16	3.11	.71	-4.42	18	.000
6	6.32	6.95	.63	3.92	.90	.70	18	.491

Table 6

Correlation Matrix -- Test and Measurement

	AGE	GPA	HRS	PRE1	PST1	PRE2	PST2	PRE3	PST3	PRE4	PST4	PRE5	PST5	PRE6	PST6
AGE	1.00														
GPA	-.12	1.00													
HRS	**-.57**	.27	1.00												
PRE1	.19	-.29	-.06	1.00											
PST1	-.08	-.26	-.09	**.58**	1.00										
PRE2	.08	-.24	.07	**.70**	.01	1.00									
PST2	-.18	.09	.29	-.08	**.46**	.23	1.00								
PRE3	-.10	.07	-.24	.03	.33	-.30	.09	1.00							
PST3	-.05	.15	-.08	-.20	-.32	**-.45**	-.17	**.44**	1.00						
PRE4	**-.39**	-.09	.07	**-.41**	-.05	**-.56**	.04	.18	.31	1.00					
PST4	-.19	.18	.10	-.35	-.16	-.27	.15	-.10	**.38**	.32	1.00				
PRE5	.06	**-.41**	-.08	**.90**	**.54**	**.63**	.01	.05	-.01	-.33	-.22	1.00			
PST5	-.08	-.31	.06	**.42**	**.84**	**.37**	**.52**	**.37**	-.13	-.03	.08	**.45**	1.00		
PRE6	**-.45**	.34	.24	-.28	.06	-.23	-.03	-.16	.22	-.14	.10	-.19	.10	1.00	
PST6	.18	-.01	-.33	.01	-.25	-.21	-.23	-.04	.33	-.11	.09	.08	-.19	.17	1.00

Note: Bolded correlations are significant at the .05 level or less.

Course Number: _____

Appendix
Graduate Student Questionnaire

INSTRUCTIONS: *Please complete the information below to the best of your ability. Your responses will remain completely anonymous.*

Part I: Personal Information

1. Quarter: _____ 2. Year: _____ 3. Gender: _____ 4. Age: _____

5. Ethnicity: _____ 6. Hours Completed: _____ 7. Date of Anticipated Graduation: _____

8. Degree Program: __ M.Ed. __ Ed.S. 5. Major: _____

9. Cumulative GPA: _____ 10. Grade Expected in this Course: _____

Part II: Course Related Information

1. What is the main reason you are taking this course?

_____

_____

_____

2. What, if any, are secondary reasons for taking this course?

_____

_____

_____

3. How might this course help in your counseling/teaching? Benefits?

_____

_____

_____

_____

_____

_____

4. Is this course optional? ___ Yes ___ No

5. Would you take this course if it was optional? ___ Yes ___ No

Course Number: _____

Part III: Rating Attitudes and Anxiety

On the rating scales below, a one is the lowest rating and a 10 is the highest rating. For each of the items, indicate on the scale how you felt about this class before taking it using a "O." Indicate on the same scale how you felt about the class after taking it using an "X."

1. Anxiety about Course Requirements

1	2	3	4	5	6	7	8	9	10

2. Negative Attitude about Course due to Boring Content

1	2	3	4	5	6	7	8	9	10

3. Interest in Learning about Course Content

1	2	3	4	5	6	7	8	9	10

4. Perception that Course Content is Relevant to Career Goals

1	2	3	4	5	6	7	8	9	10

5. Anxiety about Getting a Bad Grade

1	2	3	4	5	6	7	8	9	10

6. Confidence in Ability to be Successful in Course

1	2	3	4	5	6	7	8	9	10

Part IV: Comments

_____

_____

_____

BEST COPY AVAILABLE